

CLAIM AMENDMENTS

1 1. (currently amended) A cutting insert normally
2 clamped to a disk- or bar-shaped tool body [[(30, 36)]], in
3 particular for milling crankshafts and having a front face [[(10,
4 22)]] along at least one edge of which, and preferably along
5 opposite edges of which, there is a respective convex edge face
6 [[(11)]] having an arcuate edge [[(12)]] extending over an angle
7 between 90° and 180° and serving as cutting edge, characterized in
8 that wherein either a straight cutting edge [[(14)]] generally
9 perpendicular to the front face or at a maximum angle of 4° to a
10 perpendicular to the front face or a concave edge [[(24)]] merges
11 with the arcuate cutting edge(s) [[(12)]].

1 2. (currently amended) The cutting insert according to
2 claim 1, characterized in that wherein a mounting hole for
3 receiving a mounting screw extends through the front face [[(10,
4 22)]] so that the cutting insert [[(31)]] can be mounted laterally
5 on the tool support [[(30)]].

1 3. (currently amended) The cutting insert according to
2 claim 1, characterized in that wherein a mounting hole for
3 receiving a mounting screw extends through a roof surface [[(35)]]
4 so that the cutting insert [[(34)]] can be mounted via a mounting
5 screw extending radially of the tool support [[(36)]].

1 4. (currently amended) The cutting insert according to
2 claim 1 to 3, ~~characterized in that~~ wherein the arcuate cutting
3 edge [[(12)]] has an edge bevel [[(17, 26)]] that extends at a
4 bevel angle of 0° to 20°, ~~preferably 10°~~, and/or that tapers at
5 the front face to a width of 0 mm.

1 5. (currently amended) The cutting insert according to
2 claim 1, ~~characterized in that~~ wherein the radius of curvature of
3 the arcuate cutting edge [[(12)]], is 1.0 mm to 2.5 mm, ~~preferably~~
4 ~~1.4 mm.~~

1 6. (currently amended) The cutting insert according to
2 claim 1, ~~characterized in that~~ wherein the radius of curvature of
3 the concave edge [[(24)]] is smaller than the radius of curvature
4 of the arcuate cutting edge [[(12)]], preferably 0.3 mm to 1 mm,
5 ~~in particular 0.6 mm.~~

1 7. (currently amended) The cutting insert according to
2 claim 1, ~~characterized in that~~ wherein extending from the concave
3 edge [[(24)]] there is a straight cutting edge [[(25)]] for
4 machining cylindrical surfaces, in particular journals of
5 crankshafts.

1 8. (currently amended) The cutting insert according to
2 claim 1, ~~characterized in that wherein~~ flanks [[(18, 28)]] adjacent
3 the arcuate cutting edge [[(12)]] and/or the straight cutting edge
4 [[(25)]] are set at a positive cutting angle between 0° and 20°,
5 preferably at a positive cutting angle of 10°.

1 9. (currently amended) The cutting insert according to
2 claim 7, ~~characterized in that wherein~~ centrally extending
3 perpendicular to the front face [[(22)]] there are planar side
4 faces [[(23)]] that taper away from the front face [[(22)]]
5 preferably with flanks [[(29)]] extending away from these side
6 faces acting as chip-conducting steps for chips produced by the
7 straight cutting edge [[(25)]].

1 10. (currently amended) A milling tool with a plurality
2 of laterally clamped cutting inserts [[(31, 32)]] according to
3 claim 1, where a cutting insert [[(32)]] with an arcuate edge
4 [[(12)]] and a straight adjacent edge [[(14)]] alternates with a
5 cutting insert [[(31)]] with an arcuate edge [[(12)]] and a concave
6 adjacent edge [[(24)]] and a further straight edge [[(25)]].

1 11. (currently amended) In combination with a support
2 movable in a predetermined direction, a cutting insert having a
3 body secured to the support and formed with:

4 a front face lying generally in a plane generally
5 parallel to the direction;

6 an arcuate edge face having an [[outer]] inner end
7 merging with the front face, an outer end, and defining between the
8 inner and outer ends an arcuate cutting edge; and

9 a side face directed forward in the direction and
10 defining an outer cutting edge extending transversely of the front
11 face from the outer end of the arcuate cutting edge.

1 12. (currently amended) The combination defined in
2 claim 11 wherein the outer cutting edge is generally straight and
3 generally perpendicular to the front face.

1 13. (currently amended) The combination defined in
2 claim 12 wherein the outer cutting edge extends at an angle of at
3 most 4° to the front face.

1 14. (currently amended) The combination defined in
2 claim 11 wherein the outer cutting edge has a concave portion
3 merging [[with]] at the outer end with the arcuate cutting edge
4 [[face]] and a straight outer portion extending inward outward away
5 from the concave portion.

1 15. (previously presented) The combination defined in
2 claim 14 wherein the concave portion has a smaller radius of
3 curvature than the arcuate cutting edge.

1 16. (previously presented) The combination defined in
2 claim 15 wherein the arcuate cutting edge has a radius of curvature
3 between 1.0 m and 2.5 mm and the concave portion has a radius of
4 curvature between 0.3 mm and 1 mm.

1 17. (previously presented) The combination defined in
2 claim 11 wherein the arcuate cutting edge has an edge bevel
3 extending at an angle of 0° to 20°.

1 18. (previously presented) The combination defined in
2 claim 11 wherein the arcuate cutting edge has a radius of curvature
3 of between 1.0 mm and 2.5 mm.

1 19. (previously presented) The combination defined in
2 claim 11 wherein the side face extends at a positive cutting angle
3 between 0° and 20°.

1 20. (new) In combination with a support movable in a
2 predetermined direction, a cutting insert having a body secured to
3 the support and formed with:

4 a front face lying generally in a plane generally
5 parallel to the direction;

6 an arcuate edge face having an inner end merging with the
7 front face, an outer end, and defining between the inner and outer
8 ends an arcuate cutting edge;

9 a side face directed forward in the direction and
10 defining an outer cutting edge extending transversely of the front
11 face from the outer end of the arcuate cutting edge, the outer
12 cutting edge having a concave portion merging at the outer end with
13 the arcuate cutting edge and a straight outer portion extending
14 outward away from the concave portion;

15 a planar side face extending transversely inward away
16 from the front face along the outer cutting edge; and

17 a flank extending between the planar side face and the
18 straight outer portion of the outer cutting edge and acting as a
19 chip-conducting step for chips produced by the straight outer
20 portion.